

A CARD SYSTEM OF NOTE-KEEPING.

BY A. H. FELGER.

SEVERAL years ago I presented to the readers of 'The Auk' (Vol. XIX, 1902, pp. 189-195, 314) a plan for recording in a condensed form the life history notes of birds. This system provided for the keeping of notes on sheets of paper ruled and cross-ruled in suitable manner, a method of note-keeping that had previously found favor with many ornithologists because thereby one could see at a glance the different species observed during each day as well as the different days that each species was observed. In presenting the above mentioned plan it was my purpose to enlarge upon the system then in general use and present to field ornithologists a system by which not only the number of birds of each species observed each day might be seen at a glance, but also environments, conditions of plumage, stages of moult, indications of mating, indications of nest-building, etc.

Since publishing the above named article I have, for my own use, transformed this sheet system into a card system, which I now desire to place before the readers of 'The Auk' in the hope that by my labors some one besides myself may be benefited.

In this system I use three distinct types of cards, each 3 in. \times 5 in. and of 'medium weight,' which, for convenience of reference here, I shall designate 'condition card' (Fig. 1, card 1), 'barred card' (Fig. 2, card 1), and 'extension card' (Fig. 1, card 2; Fig. 2, card 2). The cards for these plates were not selected with reference to contemporaneity, which I hope will not confuse, but selected with a view to illustrating to better advantage the plan of amplifying notes on the 'extension cards.'

The content and method of arrangement of the subject matter to be placed on the 'condition cards' and 'barred cards' is practically the same as that of the 'headline spaces' and 'sections' respectively of my original system.

The abbreviations used on these cards are defined as follows:—

Loc. = locality.
Plum. = plumage.

- I. M. = number of indications of mating.
I. N-b. = " " indications of nest-building.
N. E. = " " nests with eggs.
N. N. = " " nests with nestlings.
No. Sn. = " seen (not including "No. F." and "Y. W. ").
No. Hd. = " heard.
No. F. = " in flocks.
No. M. = " migrating.
Y. W. = " of young on the wing.
No. T. = " taken.
A period placed in front of any number = "about."

For each day's work afield I fill out one of these 'condition cards,' one, in the majority of cases, giving sufficient space to record all notes of the nature indicated on the card that are desired. In case there is not sufficient space on this card to record all desirable data with respect to 'Floral' and 'Faunal Changes,' these notes are continued by the use of index letters onto an 'extension card' as indicated in Fig. 1, cards 1 and 2. The 'Locality' on this 'condition card' is for the general locality over which I have that day worked in distinction from the 'Exact Loc.' in which any species may be found and recorded on the 'barred cards.'

These 'condition cards' are not essential to the system and may be omitted at one's pleasure. Isolated notes taken when going to and from business, or under other adverse circumstances, cannot always be accompanied by notes of contemporaneous conditions, but it is evident that, when the opportunity is given to make such observations, notes on the new insects and other small animals that are about, the new buds and flowers that are out, etc., should be recorded as a most valuable contribution to the study of bird migrations.

The 'barred cards' will also in the majority of cases be found to contain sufficient space to accommodate the notes that should be placed upon them. The spaces within the barred lines are intended for numbers only. If one wishes to enter into descriptions of 'Indications of Mating,' of 'Nest-building,' etc., or to extend any note on the card not within the barred lines, it may easily be done by the use of as many 'extension cards' as are desirable, each being numbered consecutively. See Fig. 2, cards 1 and 2.

In recording notes of certain character, as will appear without explanation to one using this system, it is sometimes of advantage to use only the 'extension card' for the purpose, and not the 'barred card.' For example, if one should write a description

APR 19 1906		1
LOCALITY	<i>Bowles' Lake, Littleton, Colo.</i>	
FLORAL CHANGES	<i>Lilacs are leafing out, cottonwood</i>	A
FAUNAL CHANGES	<i>1 Sand Swift, many Tiger Beetles,</i>	B
WEATHER	<i>Clear and warm.</i>	
TEMPERATURE	<i>Min. 52°, Max. 74°.</i>	
WIND	<i>Mere trace from N.W.</i>	
PRECIPITATION	<i>None.</i>	
TIME OUT	<i>9:15 - 6:30</i>	
METHOD OF TRAVEL	<i>Train to Littleton, then afoot.</i>	
SPECIALTY	<i>Note taking.</i>	

APR 19 1906		2
A	<i>buds are bursting, soft maples have cast their scale leaves.</i>	
B	<i>many Carrion Beetles, many Millers, 1 Hornet, many ♂ Mosquitoes, and but 8 Grasshoppers were seen. Field Mice and Gophers show renewed activity. Frogs, first seen Mar. 27th. are now abundant and noisy.</i>	

FIG. 1, CARDS 1 AND 2.

of a bird in abnormal plumage seen in some museum, such description would be placed on 'extension cards' only.

There are other cases of what I call 'compound notes' that occasionally make their appearance in the work of every ornitholo-

gist. A note on a hybrid or a note on the killing of one bird by another would fall under this head. In such a case the names of both birds should be placed at the head of the 'extension card' and the card should be filed under the name of the bird considered of the greater importance in this case. Under the name of the

JUL 5 1906		<i>Xanthocephalus xanthocephalus</i>		1
EXACT LOC. Sloan's Lake, Denver, Colo.				
ENVIRONMENT In cattails and alfalfa fields.				
PLUM., MOULT Many with some wing and tail feathers out. A				
I. M.	N. E. $\frac{2}{4}, \frac{1}{3}$	No. Sn. .300	No. P. { Few ad. Many juv. } C	V. W. .500 C
I. N. D.	N. N. 9 B	No. Hd.	No. M.	No. T. 1 juv.
SONGS, CALLS Several full songs, many desultory and choppy, vast majority not singing, only "clucking".				
FOOD Hundreds feeding in alfalfa field, probably on grasshoppers.				

JUL 5 1906		<i>Xanthocephalus xanthocephalus</i>		2
A One with whole tail gone.				
B 9 ♀ & carrying food (apparently grasshoppers) to young.				
C Many still in pairs and several. Hundreds of young on wing in flocks and usually a few adults in each flock. One flock contained .200 juv. and .6 ad ♂ & ♀. These adults may have belonged to some of the juv. or may have been non-mated.				

FIG. 2, CARDS 1 AND 2.

bird of the lesser importance should be placed a card referring to this note and indicating where it is filed.

The cards are ruled and printed on one side only, the notes being confined wholly to this one side. Any drawings made to

accompany the notes may be placed on the blank sides of the cards, and the same filed with the note cards.

The cards may be arranged in one's file as a whole in chronological order with a 'condition card' leading each day's notes, or, as I myself keep them, the 'barred cards' together with their 'extension cards' may be arranged chronologically according to each species, the 'condition cards' being kept chronologically in a separate file. My own cards are arranged by genera, and within each genus its species, following the same order of sequence as that adopted by the A. O. U. To indicate the positions of genera I use colored ' $\frac{1}{3}$ guide cards' containing the generic names. To indicate the positions of species within each genus I use differently colored ' $\frac{1}{3}$ guide cards' containing the specific names. To indicate the positions of the subspecies I use cards of still different color.

The following cardinal advantages offered by this system may have already occurred to the reader: (1) By the use of these printed forms no note indicated thereon that should be recorded is ever forgotten, as is lamentably the case when the diary system is employed. (2) The system is self indexing. In running over a hundred cards on a certain species that one is studying it is a very simple matter by reference to the 'barred cards' to select those that contain notes on 'mating,' 'nest-building,' or the like. (3) If the cards on any given species are arranged chronologically in a horizontal row, one will have in line before him for very easy study all the notes with reference to any desired phase of the bird's life history that he has ever taken; and this without cataloguing or indexing.

I am convinced that a card system is the only system by which full notes should be kept, and no one, I think, who has had the harrowing experience of indexing and constantly using the diary system will take exception to this statement. The system that I here submit I have given a year's critical trial and am now prepared to recommend it without hesitation to all field workers who endeavor to record copious notes by following a plan that is systematic, readily understood, and easy of reference.

These cards can be made by any printing establishment provided with a ruling machine at a cost considerably below that of

the ordinary 'stock cards' furnished by firms for card catalogue purposes. In large quantities they should be obtained in this way ruled, cut, and printed, for \$1.35-\$1.50 per M.

It is often desirable to have a bird's-eye view of the numbers of birds of each species observed each day in order to study relative dates of arrival and departure, relative abundance, etc. For this purpose I keep on a simple system of quadrille rulings the numbers of the birds of each species seen or heard each day and nothing more, these same numbers appearing on the cards in amplified form in case such species have also been given card records. It frequently happens that enough data are not collected on a given species to entitle it to a card record. To illustrate, if a Hawk were seen flying overhead too far away to determine condition of plumage, stage of moult, etc., and admitting of no note other than a mere record of its occurrence, this record would be placed on the quadrille ruled sheet, and not entered upon a card. I may, at some future date, explain to the readers of 'The Auk' my method of keeping these quadrille ruled sheets.

NOTES ON THE BLACK RAIL OF CALIFORNIA.

BY WILLIAM BREWSTER.

UNDER the name *Porzana Jamaicensis*, var. *coturniculus* Baird¹ Mr. Ridgway, in 1874, described² a Rail said to have been obtained on the Farallones off the coast of California and to differ "from var. *Jamaicensis* of southeastern United States, West Indies and South America, in smaller size, and more uniform colors," the back

¹The name and its authority were thus written originally by Mr. Ridgway. They have since appeared in print in various forms, as *Porzana jamaicensis coturniculus* Baird (Ridgway, Proc. U. S. Nat. Mus., III, 1880, 202, 222), *Porzana jamaicensis*, var. *coturniculus*, "Baird MS." (Baird, Brewer, and Ridgway, Water Birds of North America, I, 1884, 378), *P. jamaicensis coturniculus* Baird (Ridgway, Manual of North American Birds, 1st ed., 1887, 140), *P. coturniculus* Baird (*Ibid.*, 2d ed., 1896, 140), and *Porzana coturniculus* (Ridgw.), (A. O. U Check-List, 2d ed., 1895, 80).

²American Naturalist, VIII, 1874, 111.